

**CLAIMS**

1. Machine for the production of multilayer food products, in particular for the production of multilayer cakes or similar products, characterized in that it  
5 comprises:

- a support structure constrained to the floor;
- a rotating platform with a substantially vertical axis Y, mounted on said support structure;

- a plurality of operating stations able to operate  
10 in sequence on said food product and associated with different sectors of said rotating platform, said plurality comprising:

- at least one station for loading different layers of pastry;

- one or more dispensing stations, each provided  
15 with a unit for distributing a filling product;
- at least one station for expelling the food product formed;

- first movement means able to displace said  
20 distribution unit or a surface supporting said food product between different operating heights corresponding to different heights of said food product, said distribution unit being thus able to intervene cyclically several times on a same food product from a predetermined  
25 height.

2. Machine according to Claim 1, characterized in that it comprises at least one first and one second dispensing station with corresponding first and second units for distributing a same or different filling products.

3. Machine according to Claims 1 or 2, characterized in that said stations are four in number and are associated with sectors of said rotating platform spaced from one another at intervals of 90°.

4. Machine according to any one of the preceding claims, characterized in that said loading and expulsion stations are arranged on adjacent sectors.

5. Machine according to Claim 1 or 2, characterized in that said first dispensing station comprises compression means mounted on said first distribution unit and able to exert a pressure on the upper surface of the food product.

6. Machine according to Claim 5, characterized in that said compression means comprise a movable framework supporting at the bottom a pressing surface which can be actuated by a first actuator mounted on said first distribution unit between a rest position, where said pressing surface does not interfere with the food product, and a compression position where said pressing surface compresses said product with a predetermined

force.

7. Machine according to Claims 1 or 2, characterized in that each distribution unit is provided with a head having a plurality of nozzles for delivering  
5 said filling product onto said food product at a predetermined distance from the latter which is reached by means of operation of said first means for performing movement between said different operating heights.

8. Machine according to Claims 6 or 7,  
10 characterized in that said pressing surface is mounted on said first distribution unit underneath said head and is provided with a plurality of holes arranged opposite said nozzles.

9. Machine according to Claim 7, characterized in  
15 that said second distribution unit of said second dispensing station is provided with second movement means mechanically connected to said head so as to displace the latter between a lowered distribution position, where said head is positioned at a predefined distance from  
20 said food product, and a raised rest position, where said head is situated at a greater distance from said food product and where delivery of the filling product is interrupted.

10. Machine according to Claims 1 or 2,  
25 characterized in that said first distribution unit is

intended to spread a liquid product over said food product.

11. Machine according to Claims 1 or 2, characterized in that said second distribution unit is  
5 intended to spread a creamy product over said food product.

12. Machine according to Claim 9, characterized in that said distribution unit is provided with two separate heads supplied with two different filling products and  
10 intended to be operated alternately depending on the filling product to be distributed.

13. Machine according to Claim 1, characterized in that said expulsion station is provided with a support base which is actuated by a second actuator so to be  
15 displaced between a bottom position where it receives said food product from said rotating platform and an upper position where, by means of pusher means, it directs said food product towards an exit opening.